

## REMARKS

Claims 1-20 are in the case. Claims 1-4, 10, and 15 are rejected under 35 USC § 102 over USPN 6,985,831 to Ito et al. Claims 5-9, 11-15, and 16-20 are rejected under 35 USC § 103 over Ito et al. in view of various sub-portions of Ito et al. Claim 1, 10, and 15 are hereby amended. No new matter is introduced by the amendments, which are supported by the specification and drawings. Reconsideration and allowance of the claims are respectfully requested.

### CLAIM REJECTIONS UNDER §103

In the office action, the examiner has cited Ito et al. as the primary 103 reference, and has then cited different portions of Ito et al. as the secondary 103 reference. This is an unusual construct, as such a rejection would typically be asserted as a 102 rejection. Regardless, applicants answer all of the rejections made against the claims and citing Ito et al. under the next section.

### CLAIM REJECTIONS UNDER §102 (ITO ET AL.)

Independent claim 1 claims, *inter alia*, A data collection system having a data input form adapted for presentation on a display and to receive data from an operator, a message queue for receiving the data from the data input form, and temporarily managing the data until the data collection system can process the data, a temporary data storage for receiving the data directly from and temporarily storing the data received by the message queue while waiting for the data collection system to process the data, a transaction manager for receiving the data directly from the message queue and processing the data, a data logger, for logging the processing transactions of the transaction manager, a data loader for receiving the data from the transaction manager and preparing the data for storage, and a data storage device, for receiving the data from the data loader.

### Applicants' First Argument

Ito et al. fail to describe a *data input form*. Instead, Ito et al. describe a data collection layer 710 that is principally responsible for accepting connections from the

field instrument unit FI 2 (column 24 lines 8-9). Column 24 goes on to explain more about the data collection layer 710. However, nowhere is the data collection layer 710 described as being a form adapted to receive data. There are many different types of data entry. Claim 1 claims a form, and Ito et al. claim the data collection layer 710 that accepts connections. A form and something that accepts connections from field instruments are two different things.

### **Examiner's Answer to Applicants' First Argument**

In response to Applicant's argument a above, the Applicant's arguments are not persuasive because Ito et al. discloses Data collection layer is the collection the data or accepting connections from the field instrument unit F12 that receives the form of the data from FI. Dependent on what kinds of files or the data are transferred to the Data collection layer so the data have itself a form. Further, the claims recite a data input form adapted to receive data. The claims do not required to create a form for data.

### **Applicants' Response to Examiner's Answer to First Argument**

Applicants respond that there is a patentable difference between “a data input form” and “the form of input data.” The examiner is confusing the different meanings of the word “form,” as it can be used in the English language. Just because the word “form” can be used in these different ways, it does not mean that the ideas expressed by the word are the same, or even similar. In this case, they are not. Claim 1 has been amended to further clarify this distinction. Thus, Ito et al. do not describe a data input form adapted to receive data. This is the first patentable difference between claim 1 and Ito et al., and this difference alone is sufficient to find patentability of claim 1 over Ito et al.

### **Applicants' Second Argument**

Ito et al. fail to describe *a message queue in combination with a temporary data storage* for temporarily storing the data received by the message queue while waiting for the data collection system to process the data. Ito et al. never describe that the files 730 or 731 temporarily store the data received by the message queues 720 while waiting for

the system to process the data. The files 730 and 731 are not even in communication with the message queues 720, as depicted in figure 14. This is very different from the connections between the temporary data storage 32 and the message queue 34 as depicted in figure 1 of the present application, and as described in claim 1.

### **Examiner's Answer to Applicants' Second Argument**

In response to Applicant's argument b above, the Applicant's arguments are not persuasive because Ito et al. shows in fig. 14, that temporary data storage 731 receives the data from the data message queues 720 (720→712→731). The claims does not recite a temporary data storage receives **direct** a data from the message. Thus, Ito et al. describes the message queue and temporary data storage that function and interact in the same manner as claimed in claim 1.

### **Applicants' Response to Examiner's Answer to Second Argument**

The claims have been amended to clarify that the temporary data storage does indeed receive the data directly from the message queue. Thus, Ito et al. do not describe the message queue and temporary data storage that function and interact in the same manner as claimed in claim 1. This is the second patentable difference between claim 1 and Ito et al., and this difference alone is sufficient to find patentability of claim 1 over Ito et al.

### **Applicants' Third Argument**

Ito et al. fail to describe that the *transaction manager receives data from the message queue* and processes the data, as claimed in claim 1 and depicted in figure 1 of the present application. Instead, Ito et al. describe that the data processing layer 714 receives data from the files 731, the prioritized data message queues 702, and the database 558. However, Ito et al. do not describe that the data processing layer 714 receives data from the message queue 720. By contrast, claim 1 claims that the transaction manager receives data from the message queue.

### **Examiner's Answer to Applicants' Third Argument**

In response to Applicant's argument c above, the Applicant's arguments are not persuasive because Ito et al. discloses the processing layer 714 receives data from the message queue 720 (720 → 712 → 731 (or 702) → 714) (see fig. 14). The claims do not recite that the processing layer receives directly data from the message queue. Thus, the Examiner gives the broadest interpretation of the claim, Ito et al. reads all limitations claimed invention.

### **Applicants' Response to Examiner's Answer to Third Argument**

The claims have been amended to clarify that the transaction manager does indeed receive the data directly from the message queue. Thus, Ito et al. do not describe the message queue and transaction manager that function and interact in the same manner as claimed in claim 1. This is the third patentable difference between claim 1 and Ito et al., and this difference alone is sufficient to find patentability of claim 1 over Ito et al.

### **Summary of Arguments in Regard to Claim 1 et seq.**

Thus, there are at least three substantial differences between claim 1 as recited and Ito et al., any one of which is sufficient to find patentability of claim 1. Therefore, claim 1 patentably defines over Ito et al. Reconsideration and allowance of claim 1 are respectfully requested. Dependent claims 2-4 depend from independent claim 1, and contain additional important aspects of the invention. Therefore, dependent claims 2-4 patentably define over Ito et al. Reconsideration and allowance of dependent claims 2-4 are respectfully requested.

### **Arguments in Regard to Claim 10 et seq.**

Similar to that as described above in regard to claim 1, independent claim 10 claims, *inter alia*, a data collection system with a presentation layer including, a data input form adapted for presentation on a display and to receive data from an operator, and an output form for presenting statistically manipulated historical trends of the data, a

business logic layer including, a message queue for receiving the data from the data input form, and temporarily managing the data until the data collection system can process the data, a temporary data storage for receiving the data directly from and temporarily storing the data received by the message queue while waiting for the data collection system to process the data, a transaction manager for receiving the data directly from the message queue and processing the data, a data logger, for logging the processing transactions of the transaction manager, and a data loader for receiving the data from the transaction manager and preparing the data for storage, and a data service layer including, a data storage device, for receiving the data from the data loader.

Thus, claim 10 recites all of the elements from the discussion above, wherein three patentable differences were identified between the invention as claimed and Ito et al. Further, claim 10 recites additional important aspects, such as the layer structure for the system, and the relationship of the various elements as to which layer they reside upon. Ito et al. does not describe any of these relationships as claimed. Thus, there is identified another patentable difference between claim 10 and Ito et al.

The examiner responds:

In response to Applicant's argument d above, the Applicant's arguments are not persuasive because Ito et al. discloses all elements in claim. The layers classify those elements in claim. Ito et al. discloses all elements in claim with the same structure so the system will provide the same layer as claimed invention.

Applicants traverse the assertion that Ito et al. discloses all the elements in claim 10. Many elements that are not described by Ito et al. have been given in the sections above in regard to claim 1. Further, Ito et al. do not describe the presentation layer, the business logic layer, and the data service layer.

Thus, there are at least four substantial differences between claim 10 as recited and Ito et al., any one of which is sufficient to find patentability of claim 10. Therefore, claim 10 patentably defines over Ito et al. Reconsideration and allowance of claim 10 are respectfully requested. Dependent claims 11-14 depend from independent claim 10, and contain additional important aspects of the invention. Therefore, dependent claims 11-14

patentably define over Ito et al. Reconsideration and allowance of dependent claims 11-14 are respectfully requested.

### **Arguments in Regard to Claim 15 et seq.**

Similar to that as described above in regard to claims 1 and 10, independent claim 15 claims, *inter alia*, a data collection system with a data input form adapted for presentation on a display and to receive data from an operator, a message queue for receiving the data from the data input form, and temporarily managing the data until the data collection system can process the data, a temporary data storage for receiving the data directly from and temporarily storing the data received by the message queue while waiting for the data collection system to process the data, a transaction manager for receiving the data directly from the message queue and processing the data, a data logger, for logging the processing transactions of the transaction manager, a data loader for receiving the data from the transaction manager and preparing the data for storage, a data storage device, for receiving the data from the data loader, a statistical process control engine for receiving the data from at least one of the transaction manager and the data storage device, and statistically manipulating the data, a state simulation engine for gathering and providing state data between the data collection system and a statistical process control engine, and an output form for presenting statistically manipulated historical trends of the data.

Thus, claim 15 also recites all of the elements mentioned in the discussions above, wherein three patentable differences were identified between the invention as claimed and Ito et al. Further, claim 15 recites additional important aspects, such as the state simulation engine. Ito et al. does not describe anything like a state simulation engine, which coordinates communication between different programs in the manner as claimed and depicted in figure 3 of the present application. The examiner references the background section of Ito et al. for support of Ito et al.'s teaching of a state engine. However, the referenced portion, column 1 lines 65-68, says nothing about such a state engine (it is noted that column 1 only has 67 lines). Further, no other section of Ito et al. says anything about a state engine. Thus, there is identified another patentable difference between claim 15 and Ito et al.

The examiner responds:

In response to Applicant's argument ~~e~~ above, the Applicant's arguments are not persuasive because Ito et al. discloses in fig. 4 that the statistically manipulated historical trend of the data (154, 162), a statistical process control engineer (154)(state engine). In column 1, line 65-68 that support for motivation as providing a statistics to a user's database.

Applicants respond by again asserting that the referenced portion of Ito et al., column 1, lines 65-68, say nothing about a state engine or statistical operations. The relevant portion of column 1 is given below:

Another limitation in current practice is the accuracy of pressure measurement, which is impaired by ambient temperature fluctuations. This accuracy limitation reduces the effectiveness in many process monitoring applications that depend on measurement stability, such as process simulation or process accounting.

As seen, there is no mention of a state engine or statistics. Further, element 154 is an Oracle 8i database engine and element 162 is a server. There is no description of either element operating either a state machine or statistical functions.

Thus, there are at least four substantial differences between claim 15 as recited and Ito et al., any one of which is sufficient to find patentability of claim 15. Therefore, claim 15 patentably defines over Ito et al. Reconsideration and allowance of claim 15 are respectfully requested. Dependent claims 16-20 depend from independent claim 15, and contain additional important aspects of the invention. Therefore, dependent claims 16-20 patentably define over Ito et al. Reconsideration and allowance of dependent claims 16-20 are respectfully requested.

## CONCLUSION


Applicants assert that the claims of the present application patentably define over the prior art made of record and not relied upon for the same reasons as given above. Applicants respectfully submit that a full and complete response to the office action is

provided herein, and that the application is now fully in condition for allowance. Action in accordance therewith is respectfully requested.

In the event this response is not timely filed, applicants hereby petition for the appropriate extension of time. If any fees are required by this amendment, such fees may be charged to deposit account 12-2252.

Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By: 

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